



Phosphor Information Leaflet

GENERAL

Name	Yttrium gadolinium borate terbium
Chemical formula	(Y,Gd)BO ₃ :Tb ³⁺
Application	Plasma display panels, Discharge lamps

OPTICAL PROPERTIES

Excitation maxima @	274 nm (4.53 eV)
Emission maximum @ 274 nm exc.	542 nm (2.29 eV)
Centroid wavelength	552 nm (2.25 eV)
Full width @ half emission maximum	Line
Lumen equivalent	541 lm/W _{opt.}
CIE1931 chromaticity coordinates (x, y)	0.322, 0.624
Band edge of host lattice	166 nm (7.5 eV)
Reflection @ 274 nm	89 %
Decay time $\tau_{1/e}$	4,5 ms

PHYSICAL PROPERTIES

Body colour	White
Density	4.5 g/cm ³
Particle size d ₅₀	10 μ m
Mineral type	Pseudo-vaterite
Crystal system	Orthorhombic
Space group (#)	C m c m (#63)

